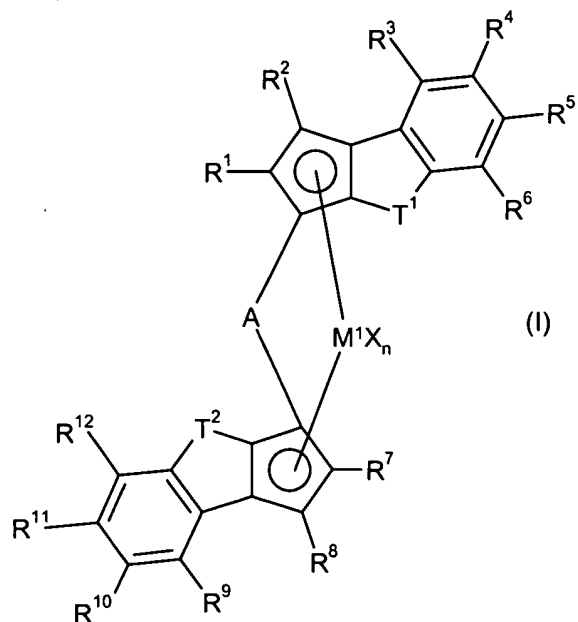


AMENDMENTS TO THE CLAIMS

1. (Original) An organometallic transition metal compound of the formula (I)



where

M^1 is a metal of group 3, 4, 5 or 6 of the Periodic Table of the Elements or the lanthanides,

X are identical or different and are each an organic or inorganic radical, where two radicals X can also be joined to one another,

n is a natural number from 1 to 4,

T^1 , T^2 are identical or different and are each a divalent group selected from the group consisting of -O-, -S-, -Se-, -Te-, -N(R^{13})-, -P(R^{13})-, -As(R^{13})-, -Sb(R^{13})-, -Si(R^{13})₂-, -C(R^{13} R^{14})-C(R^{13} R^{15})- and -C(R^{14})=C(R^{15})-, where R^{13} , R^{14} and R^{15} are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^1 , R^7 are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^2, R^8 are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^3, R^9 are identical or different and are each halogen or an organic radical having from 1 to 40 carbon atoms, where R^3 is not methyl when T^1 is $-C(H)=C(H)-$,

$R^4, R^5, R^6, R^{10}, R^{11}$ and R^{12} are identical or different and are each hydrogen, halogen or an organic radical having from 1 to 40 carbon atoms, or two adjacent radicals $R^4, R^5, R^6, R^{10}, R^{11}$ and R^{12} together with the atoms connecting them form a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

or,

if T^1 or T^2 is $-O-$, $-S-$, $-Se-$ or $-Te-$, the radical R^3 together with R^4 and/or the radical R^9 together with R^{10} forms a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

and

A is a bridge consisting of a divalent atom or a divalent group.

2. (Original) An organometallic transition metal compound of the formula (I) as claimed in claim 1,

wherein

M^1 is an element of group 4 of the Periodic Table of the Elements,

n is 2,

T^1, T^2 are identical and are each $-O-$, $-S-$, $-Se-$ or $-Te-$,

R^1, R^7 are identical and are each a C_1 - C_{10} -alkyl radical,

R^2, R^8 are identical and are each hydrogen,

R^3, R^9 are identical or different and are each a substituted or unsubstituted C_6 - C_{40} -aryl radical or C_2 - C_{40} -heteroaromatic radical containing at least one heteroatom selected from the group consisting of O, N, S and P,

R^4, R^5, R^{10} and R^{11} are identical and are each hydrogen,

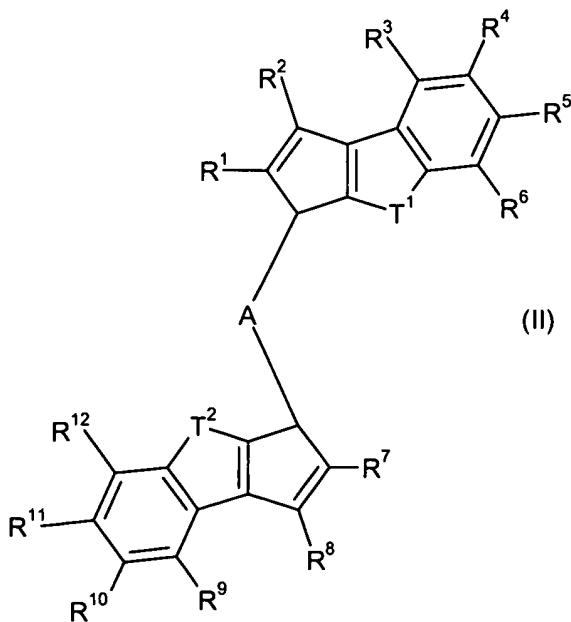
R^6, R^{12} are identical and are each hydrogen or an organic radical having from 1 to 20 carbon atoms,

A is a substituted silylene group or a substituted or unsubstituted ethylene group,

and

the other variables are as defined in claim 1.

3. (Currently amended) A biscyclopentadienyl ligand system of the formula (II)



or one of its double bond isomers,

where ~~the variables~~ $R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, T^1, T^2$ and A are as defined in formula (I)

T^1 and T^2 are identical or different and are each a divalent group selected from the group consisting of -O-, -S-, -Se-, -Te-, -N(R^{13})-, -P(R^{13})-, -As(R^{13})-, -Sb(R^{13})-, -Si(R^{13})₂-, -C($R^{13}R^{14}$)-, -C($R^{13}R^{15}$)- and -C(R^{14})=C(R^{15})-, where R^{13} , R^{14} and R^{15} are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^1 and R^7 are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^2 and R^8 are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms,

R^3 and R^9 are identical or different and are each halogen or an organic radical having from 1 to 40 carbon atoms, where R^3 is not methyl when T^1 is -C(H)=C(H)-,

$R^4, R^5, R^6, R^{10}, R^{11}$ and R^{12} are identical or different and are each hydrogen, halogen or an organic radical having from 1 to 40 carbon atoms, or two adjacent radicals $R^4, R^5, R^6, R^{10}, R^{11}$ and R^{12} together with the atoms connecting them form a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

or,

if T^1 or T^2 is -O-, -S-, -Se- or -Te-, the radical R^3 together with R^4 and/or the radical R^9 together with R^{10} forms a monocyclic or polycyclic, substituted or unsubstituted ring system which has from 1 to 40 carbon atoms and may also contain heteroatoms selected from the group consisting of the elements O, S, Se, Te, N, P, As, Sb and Si,

and

A is a bridge consisting of a divalent atom or a divalent group.

4. (Original) A biscyclopentadienyl ligand system of the formula (II) as claimed in claim 3, wherein

T^1, T^2 are identical and are each -O-, -S-, -Se- or -Te-,

R^1, R^7 are identical and are each a C_1 - C_{10} -alkyl radical,

R^2, R^8 are identical and are each hydrogen,

R^3, R^9 are identical or different and are each a substituted or unsubstituted C_6 - C_{40} -aryl radical or C_2 - C_{40} -heteroaromatic radical containing at least one heteroatom selected from the group consisting of O, N, S and P,

R^4, R^5, R^{10} and R^{11} are identical and are each hydrogen,

R^6, R^{12} are identical and are each hydrogen or an organic radical having from 1 to 20 carbon atoms,

and

A is a substituted silylene group or a substituted or unsubstituted ethylene group.

5. (Currently amended) A catalyst system for the polymerization of olefins comprising at least one organometallic transition metal compound as claimed in claim 1 [~~or 2~~] and at least one cocatalyst which is able to convert the organometallic transition metal compound into a species which displays polymerization activity toward at least one olefin.

6. (Original) A catalyst system as claimed in claim 5 which further comprises a support.

7. (Currently amended) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 5 [~~or 6~~].
8. cancelled
9. (Currently amended) A process for preparing an organometallic transition metal compound, which comprises ~~reacting a~~ reacting the biscyclopentadienyl ligand system as claimed in claim 3 [~~or 4~~] or a bisanion prepared therefrom with a transition metal compound.
10. (Original) A polyolefin obtainable by the process as claimed in claim 7.
11. (New) A catalyst system for the polymerization of olefins comprising at least one organometallic transition metal compound as claimed in claim 2 and at least one cocatalyst which is able to convert the organometallic transition metal compound into a species which displays polymerization activity toward at least one olefin.
12. (New) A catalyst system as claimed in claim 11 which further comprises a support.
13. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 11.
14. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 12.
15. (New) A process for preparing polyolefins by polymerization or copolymerization of at least one olefin in the presence of a catalyst system as claimed in claim 6.
16. (New) A process for preparing an organometallic transition metal compound, which comprises reacting the biscyclopentadienyl ligand system as claimed in claim 4 or a bisanion prepared therefrom with a transition metal compound.